

INCIDENCE, RISK FACTORS AND OUTCOME OF VENTILATOR ASSOCIATED PNEUMONIA IN ICU PATIENTS

ABSTRACT

Ventilator associated pneumonia is the second most common nosocomial infection diagnosed in intensive care units. VAP is defined as pneumonia that occurs 48 hours or more after endotracheal intubation or tracheostomy caused by infectious agents not present or incubating at the time mechanical ventilation was started.

AIMS AND OBJECTIVES:

To determine the incidence , risk factors and outcome associated with ventilator associated pneumonia in ICU patients. To identify the various bacterial pathogens causing VAP in ICU patients and also to identify the significance of CPIS score as a prognostic indicator.

MATERIALS AND METHODS:

In our study 50 patients who were on mechanical ventilation for more than 48 hours and who met the inclusion and exclusion criteria from the ICU and Toxicology unit of RGGGH were selected. CPIS score and culture of endotracheal aspirate samples were utilized to diagnose VAP.

OBSERVATION AND RESULTS:

The overall incidence of VAP in our study was 32% with increased frequency observed among patients less than 30 years and among male patients. There is equal incidence of early and late onset VAP. VAP is most commonly due to gram negative bacilli. CPIS score more than 6 had a significant association with the diagnosis of VAP ($p<0.001$). The outcome in relation to VAP had a significant association in our study ($p=0.014$) and also patients had to be on mechanical ventilation for prolonged periods following development of VAP($p<0.001$).

CONCLUSION:

VAP occurs frequently and is a significant cause of morbidity in critically ill patients. VAP is mostly caused by MDR organisms and aspiration is an important precipitating factor. The incidence of VAP is directly proportional to the duration of mechanical ventilation. VAP can be prevented by non- invasive modes of ventilation whenever possible, proper weaning protocols, good nursing care and appropriate antibiotic coverage.

KEY WORDS:

Ventilator associated pneumonia, mechanical ventilation, CPIS score, aspiration.